UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,183	11/27/2006	Takakazu Shiomi	P30534	1989

52123 7590 09/21/2010

GREENBLUM & BERNSTEIN, P.L.C.
1950 ROLAND CLARKE PLACE
RESTON, VA 20191

EXAMINER	
LAY, MICHELLE K	

ART UNIT	PAPER NUMBER
2628	

NOTIFICATION DATE	DELIVERY MODE
09/21/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com
pto@gbpatent.com

Office Action Summary	Application No.	Applicant(s)	
	10/598,183	SHIOMI ET AL.	
	Examiner	Art Unit	
	MICHELLE K. LAY	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 September 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *20-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *20-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The amendment filed 09/07/2010 has been entered and made of record. Claims 1-19 are cancelled. Claims 20-22 are pending.

The amendment to claim 22 has overcome the 35 USC §101 rejection made in the non-final office action filed 06/18/2010.

Response to Arguments

Applicant's arguments filed 09/07/2010 have been considered but are moot in view of the new ground(s) of rejection necessitated by Applicant's amendment. The claims limitations are amended to recite a plurality of video storage areas and still image storage areas. Claims 20-22 are now rejected in view of Matsumoto et al. (2003/0080958) in view of Dinwiddie, Jr. et al. (5,434,590).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims **20-22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (2003/0080958) in view of Dinwiddie, Jr. et al. (5,434,590).

Matsumoto teaches the limitations of claims 20-22 with the exception of explicitly teaching a plurality of video and still image storage areas. However, Dinwiddie teaches it is common in multimedia computer systems for multiple types of storage areas for different types of media.

In regards to claim **20**, Matsumoto teaches an image generating apparatus that superimposes a plurality of layers for display. Matsumoto teaches a program storage device readable by a computer for tangibly embodying a program of instructions executable by the computer to perform an image generating method [0043]. The program can be downloaded through a communication device (said ***downloader operable to download the program***) and then executed via the image generating apparatus (said ***executioner***) [0044]. The image generating apparatus (1) is provided with a drawing application processor (11), a graphics library (12), a drawing device (13), a graphics memory (16) and a superimposing unit (17) [Fig. 1; 0068]. The image generating apparatus (1) is designed so as to be able to generate images of the plurality of layers. In order that the drawing device (13) generates a 3D image of the first layer, a first frame buffer (16a) is installed within the graphics memory (16). In order to generate a 3D image of the second layer, a second frame buffer (16b) is installed within the graphics memory (16). Namely, the frame buffers whose number is corresponding to the number of the layers are installed within the graphics memory (16) (said ***a provider operable to provide ... plurality of storage areas***) [0069]. With reference to Fig. 3, the drawing application processor (11) generates a display list for a 3D image.

The generated display list is stored as an object display list (1) of the graphics library (12) (said ***an order storage***) [0079]. The display list execution device (123) (said ***notifier***) controls the drawing device (13). When generating the 3D image, the display list execution device (123) instructs the scene object setting device (121) and the display list arranging device (122) to send the coordinate transformation information and the arrange or reconstructed display list (said ***notification regarding the order stored***) to the drawing device (13) and further instructs the drawing device (13) to execute the image generating process [0076]. If the arranging or reconstruction of the display list is indicated, the display list received from the drawing application processor (11) is arranged or reconstructed (said ***graphic image is overwritten according to specified order***) so as to be suitable for the drawing device (13) [0083]. Therefore, the display list provides the specified order to arrange or reconstruct the layers. The multiple layers within the multiple frame buffers (16a, b ...) are configured so as to be displayed on and outputted as one multiple-layer 3D image to a display unit, after they are superimposed by the superimposing unit (17) (said ***a display operable to superimpose***) [0069; 0078]. Furthermore, as shown in Fig. 1, the system of Matsumoto teaches the different layers comprising the superimposed image are stored in a first frame buffer (16a), second frame buffer (16b) ... *n* frame buffer, depended on the *n* number of layers. The generated display list provides a specified order in which the layers will be superimposed in [0079]. Thus, the different layers are stored in the order in which the layers will be superimposed as indicated by the display list (said ***graphics images stored in storage areas in accordance with specified order storage***).

As indicated above, when generating the 3D image, the display list execution device (123) instructs the scene object setting device (121) and the display list arranging device (122) to send the coordinate transformation information and the arrange or reconstructed display list (said ***notification regarding the order stored***) to the drawing device (13) and further instructs the drawing device (13) to execute the image generating process [0076]. If the arranging or reconstruction of the display list is indicated, the display list received from the drawing application processor (11) is arranged or reconstructed so as to be suitable for the drawing device (13) [0083]. Therefore, although Matsumoto does not explicitly teach changing the specified order, Matsumoto teaches the display list can be arranged or reconstructed. Therefore, it would have been obvious to one of ordinary skill in the art that the arranging or reconstruction of the display list can indicate a change to the display order (i.e., specified order) of the plurality of layers of the multiple layer image.

Dinwiddie teaches the art of multimedia computer systems. Dinwiddie further teaches it is often desirable to concurrently display a plurality of different image signals, including full motion video signals and still images. Multiple image signals may be concurrently displayed using a multiple plane method. A background signal which is rapidly changing (e.g., full motion video) is stored in a first memory (the background memory) (said ***video areas for storing video images***). A foreground signal which is relatively constant (e.g., text or graphics) is stored in a second memory (said ***still areas for storing still images***). The two planes are merged and a merged signal is provided to the display device. The multiple image signals may be concurrently displayed using

an overlay method [c.1 L.48-67]. Although Dinwiddie discloses a single video storage and still storage, it would have been obvious to one of ordinary skill in the art to have a plurality of video and still image storage areas in order to have the capability to store an excessive amount of video and still images (said ***plurality***) [St. Regis Paper Co., v. Bemis Co., Inc., 193 USPQ 8, 11 (8th Cir. 1977)].

It would have been obvious to one of ordinary skill in the art to modify the method/system of Matsumoto with the specified storage areas of Dinwiddie because the different types of media require different size memory. Therefore, it is possible to provide more memory storage to the video storage areas where the still image memory does not require as much, utilizing the memory to its greatest capacity.

In regards to claim **21**, claim 21 recites similar limitations as claim 20 but in process form. Therefore, the same rationale used for claim 20 is applied. Furthermore, Matsumoto teaches the process implemented by the system described in the rationale of claim 20 within Fig. 3 [0079].

In regards to claim **22**, claim 22 recites similar limitations as claim 20 but in manufacture form. Therefore, the same rationale used for claim 20 is applied. Furthermore, Matsumoto teaches the program storage device (said ***computer readable storage medium***) readable by a computer for tangibly embodying a program of instructions executable by the computer to perform an image generating method [0043].

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle K. Lay whose telephone number is (571) 272-7661. The examiner can normally be reached on Monday-Friday 7:30a-3:30p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee M. Tung can be reached on (571) 272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michelle K. Lay/
Primary Examiner, Art Unit 2628
16 September 2010